

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_RICKS 34-15 PAD

Ricks 13-15

Ricks 13-15

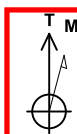
Plan: RICKS 13-15 (wp02)

Standard Planning Report

11 November, 2010



Project: COLORADO NORTHERN ZONE - 83
Site: WELD_RICKS 34-15 PAD
Well: Ricks 13-15
Wellbore: Ricks 13-15
Section:
SHL:
Design: RICKS 13-15 (wp02)
Latitude: 40.131989
Longitude: -104.657780
GL: 4875.00
KB: WELL @ 4875.00ft (Original Well Elev)



Azimuths to True North
Magnetic North: 8.86°
Magnetic Field
Strength: 53064.5nT
Dip Angle: 66.87°
Date: 11/10/2010
Model: IGRF2010



Weatherford®

FORMATION TOP DETAILS

| TVDPath | MDPath | Formation | |
|---------|---------|------------|------|
| 3975.00 | 4004.34 | PRKMN TOP | 0.00 |
| 4475.00 | 4504.34 | SX TOP | 0.00 |
| 6880.00 | 6909.34 | NIO TOP | 0.00 |
| 7165.00 | 7194.34 | CODELL TOP | 0.00 |
| 7248.00 | 7277.34 | GRNHRN TOP | 0.00 |

WELL DETAILS: Ricks 13-15

| +N/-S | +E/-W | Northing | Ground Level: Easting | 4875.00 Latitude | Longitude | Slot |
|-------|-------|------------|--------------------------|---------------------|-------------|------|
| 0.00 | 0.00 | 1292045.64 | 3235490.76 | 40.131989 | -104.657780 | |

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

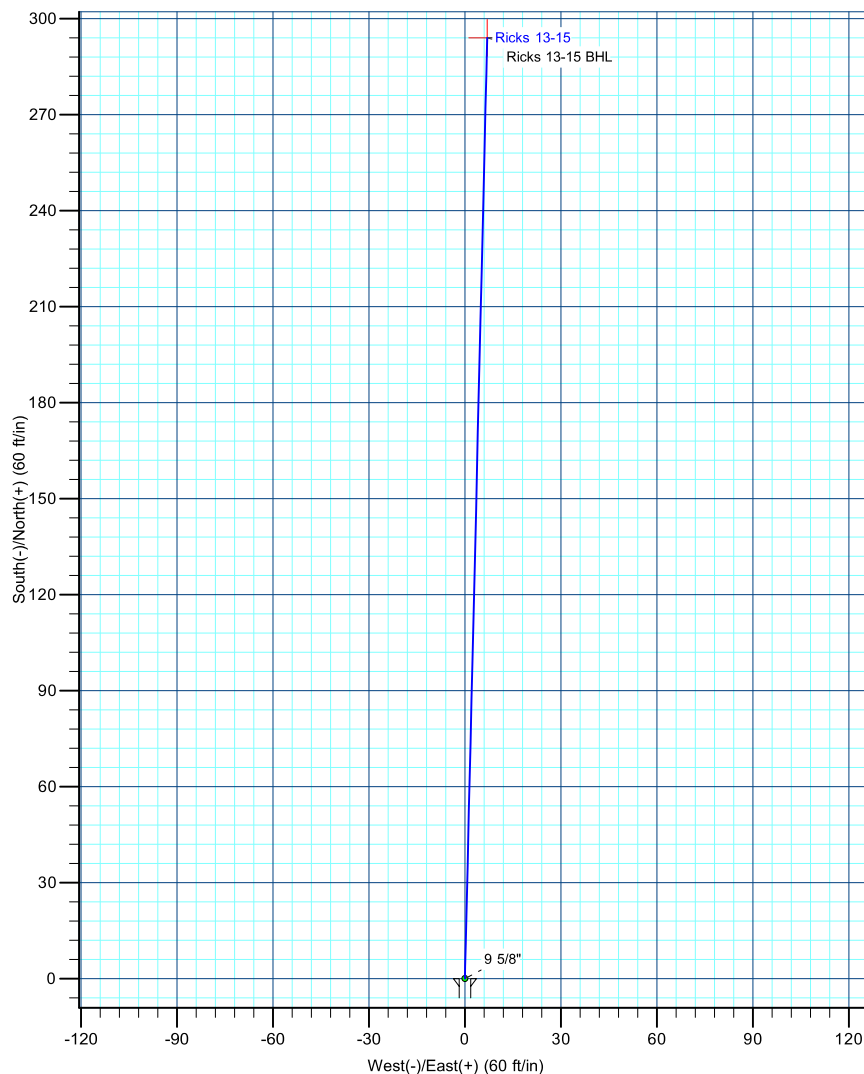
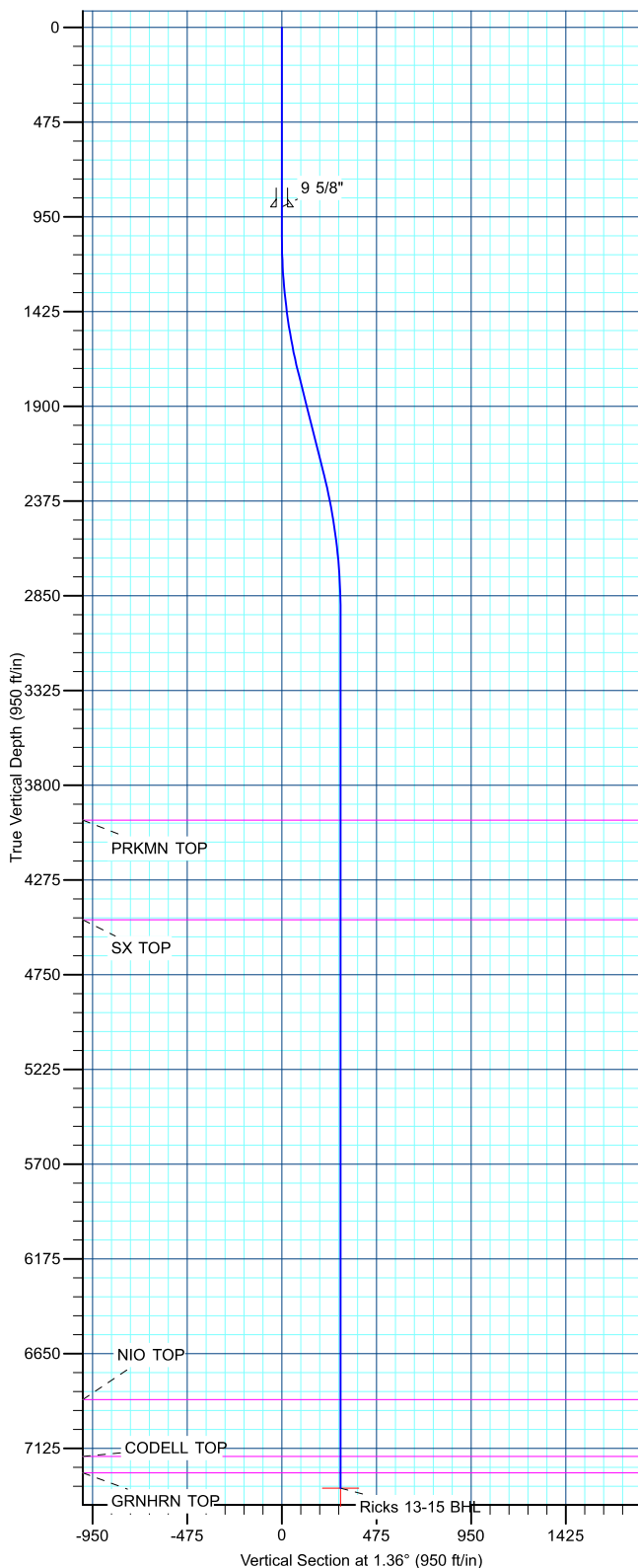
| Name | TVD | +N/-S | +E/-W | Latitude | Longitude | Point | Shape |
|-----------------|--------|--------|-------|-----------|-------------|-------|-------|
| Ricks 13-15 BHL | 325.00 | 293.99 | 6.99 | 40.132796 | -104.657755 | | |

SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect | Target |
|-----|---------|-------|------|---------|--------|-------|------|--------|--------|-----------------|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2 | 1050.00 | 0.00 | 0.00 | 1050.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3 | 1761.20 | 14.22 | 1.36 | 1753.91 | 87.80 | 2.09 | 2.00 | 1.36 | 87.83 | |
| 4 | 2243.14 | 14.22 | 1.36 | 2221.09 | 206.19 | 4.90 | 0.00 | 0.00 | 206.25 | |
| 5 | 2954.34 | 0.00 | 0.00 | 2925.00 | 293.99 | 6.99 | 2.00 | 180.00 | 294.07 | |
| 6 | 7354.34 | 0.00 | 0.00 | 7325.00 | 293.99 | 6.99 | 0.00 | 0.00 | 294.07 | Ricks 13-15 BHL |

CASING DETAILS

| TVD | MD | Name | Size |
|--------|--------|--------|-------|
| 900.00 | 900.00 | 9 5/8" | 9-5/8 |



| | | | |
|------------------|-----------------------------|-------------------------------------|---------------------------------------|
| Database: | edm5000p | Local Co-ordinate Reference: | Well Ricks 13-15 |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | WELL @ 4875.00ft (Original Well Elev) |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | WELL @ 4875.00ft (Original Well Elev) |
| Site: | WELD_RICKS 34-15 PAD | North Reference: | True |
| Well: | Ricks 13-15 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Ricks 13-15 | | |
| Design: | RICKS 13-15 (wp02) | | |

| | | | |
|--------------------|-----------------------------|----------------------|----------------|
| Project | COLORADO NORTHERN ZONE - 83 | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | |

| | | | | | |
|-----------------------|----------|----------------------|-----------------|-------------------|-------------|
| Site | | WELD_RICKS 34-15 PAD | | | |
| Site Position: | | Northing: | 1,292,045.96 ft | Latitude: | 40.131989 |
| From: | Lat/Long | Easting: | 3,235,522.63 ft | Longitude: | -104.657666 |
| Position Uncertainty: | 0.00 ft | Slot Radius: | 0 " | Grid Convergence: | 0.54 ° |

| Well | Ricks 13-15 | | | | | |
|----------------------|-------------|-----------|---------------------|-----------------|---------------|-------------|
| Well Position | +N/-S | -0.02 ft | Northing: | 1,292,045.64 ft | Latitude: | 40.131989 |
| | +E/-W | -31.88 ft | Easting: | 3,235,490.76 ft | Longitude: | -104.657780 |
| Position Uncertainty | | 0.00 ft | Wellhead Elevation: | | Ground Level: | 4,875.00 ft |

| | | | | | |
|-----------------|-------------|--|--|--|--|
| Wellbore | Ricks 13-15 | | | | |
|-----------------|-------------|--|--|--|--|

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|-----------|------------|-------------|-----------------|---------------|---------------------|
| | IGRF2010 | 11/10/2010 | 8.86 | 66.87 | 53,064 |

| | | | | | |
|---------------|--------------------|--|--|--|--|
| Design | RICKS 13-15 (wp02) | | | | |
|---------------|--------------------|--|--|--|--|

| | | | | | |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|------|
| Audit Notes: | | | | | |
| Version: | | Phase: | PLAN | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) | |
| | 0.00 | 0.00 | 0.00 | 1.36 | |

| Plan Sections | | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|-----------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,050.00 | 0.00 | 0.00 | 1,050.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,761.20 | 14.22 | 1.36 | 1,753.91 | 87.80 | 2.09 | 2.00 | 2.00 | 0.00 | 1.36 | |
| 2,243.14 | 14.22 | 1.36 | 2,221.09 | 206.19 | 4.90 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,954.34 | 0.00 | 0.00 | 2,925.00 | 293.99 | 6.99 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 7,354.34 | 0.00 | 0.00 | 7,325.00 | 293.99 | 6.99 | 0.00 | 0.00 | 0.00 | 0.00 | Ricks 13-15 BHL |

| | | | |
|------------------|-----------------------------|-------------------------------------|---------------------------------------|
| Database: | edm5000p | Local Co-ordinate Reference: | Well Ricks 13-15 |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | WELL @ 4875.00ft (Original Well Elev) |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | WELL @ 4875.00ft (Original Well Elev) |
| Site: | WELD_RICKS 34-15 PAD | North Reference: | True |
| Well: | Ricks 13-15 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Ricks 13-15 | | |
| Design: | RICKS 13-15 (wp02) | | |

Planned Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 400.00 | 0.00 | 0.00 | 400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 600.00 | 0.00 | 0.00 | 600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 800.00 | 0.00 | 0.00 | 800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 900.00 | 0.00 | 0.00 | 900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9 5/8" | | | | | | | | | |
| 1,000.00 | 0.00 | 0.00 | 1,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,050.00 | 0.00 | 0.00 | 1,050.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,100.00 | 1.00 | 1.36 | 1,100.00 | 0.44 | 0.01 | 0.44 | 2.00 | 2.00 | 0.00 |
| 1,200.00 | 3.00 | 1.36 | 1,199.93 | 3.92 | 0.09 | 3.93 | 2.00 | 2.00 | 0.00 |
| 1,300.00 | 5.00 | 1.36 | 1,299.68 | 10.90 | 0.26 | 10.90 | 2.00 | 2.00 | 0.00 |
| 1,400.00 | 7.00 | 1.36 | 1,399.13 | 21.35 | 0.51 | 21.35 | 2.00 | 2.00 | 0.00 |
| 1,500.00 | 9.00 | 1.36 | 1,498.15 | 35.26 | 0.84 | 35.27 | 2.00 | 2.00 | 0.00 |
| 1,600.00 | 11.00 | 1.36 | 1,596.63 | 52.62 | 1.25 | 52.63 | 2.00 | 2.00 | 0.00 |
| 1,700.00 | 13.00 | 1.36 | 1,694.44 | 73.40 | 1.75 | 73.42 | 2.00 | 2.00 | 0.00 |
| 1,761.20 | 14.22 | 1.36 | 1,753.91 | 87.80 | 2.09 | 87.83 | 2.00 | 2.00 | 0.00 |
| 1,800.00 | 14.22 | 1.36 | 1,791.53 | 97.33 | 2.31 | 97.36 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 14.22 | 1.36 | 1,888.46 | 121.90 | 2.90 | 121.93 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 14.22 | 1.36 | 1,985.40 | 146.46 | 3.48 | 146.50 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 14.22 | 1.36 | 2,082.33 | 171.03 | 4.07 | 171.07 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 14.22 | 1.36 | 2,179.26 | 195.59 | 4.65 | 195.65 | 0.00 | 0.00 | 0.00 |
| 2,243.14 | 14.22 | 1.36 | 2,221.09 | 206.19 | 4.90 | 206.25 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 13.09 | 1.36 | 2,276.33 | 219.61 | 5.22 | 219.67 | 2.00 | -2.00 | 0.00 |
| 2,400.00 | 11.09 | 1.36 | 2,374.11 | 240.54 | 5.72 | 240.61 | 2.00 | -2.00 | 0.00 |
| 2,500.00 | 9.09 | 1.36 | 2,472.56 | 258.05 | 6.14 | 258.12 | 2.00 | -2.00 | 0.00 |
| 2,600.00 | 7.09 | 1.36 | 2,571.56 | 272.11 | 6.47 | 272.19 | 2.00 | -2.00 | 0.00 |
| 2,700.00 | 5.09 | 1.36 | 2,670.99 | 282.71 | 6.72 | 282.79 | 2.00 | -2.00 | 0.00 |
| 2,800.00 | 3.09 | 1.36 | 2,770.73 | 289.83 | 6.89 | 289.92 | 2.00 | -2.00 | 0.00 |
| 2,900.00 | 1.09 | 1.36 | 2,870.66 | 293.48 | 6.98 | 293.56 | 2.00 | -2.00 | 0.00 |
| 2,954.34 | 0.00 | 0.00 | 2,925.00 | 293.99 | 6.99 | 294.07 | 2.00 | -2.00 | 0.00 |
| 3,000.00 | 0.00 | 0.00 | 2,970.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 0.00 | 0.00 | 3,070.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 0.00 | 0.00 | 3,170.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 0.00 | 0.00 | 3,270.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 0.00 | 0.00 | 3,370.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 0.00 | 0.00 | 3,470.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 0.00 | 0.00 | 3,570.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 0.00 | 0.00 | 3,670.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 0.00 | 0.00 | 3,770.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 0.00 | 0.00 | 3,870.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 0.00 | 0.00 | 3,970.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 4,004.34 | 0.00 | 0.00 | 3,975.00 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| PRKMN TOP | | | | | | | | | |
| 4,100.00 | 0.00 | 0.00 | 4,070.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 0.00 | 0.00 | 4,170.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 0.00 | 0.00 | 4,270.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 0.00 | 0.00 | 4,370.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 0.00 | 0.00 | 4,470.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 4,504.34 | 0.00 | 0.00 | 4,475.00 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |

| | | | |
|------------------|-----------------------------|-------------------------------------|---------------------------------------|
| Database: | edm5000p | Local Co-ordinate Reference: | Well Ricks 13-15 |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | WELL @ 4875.00ft (Original Well Elev) |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | WELL @ 4875.00ft (Original Well Elev) |
| Site: | WELD_RICKS 34-15 PAD | North Reference: | True |
| Well: | Ricks 13-15 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Ricks 13-15 | | |
| Design: | RICKS 13-15 (wp02) | | |

Planned Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| SX TOP | | | | | | | | | |
| 4,600.00 | 0.00 | 0.00 | 4,570.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 0.00 | 0.00 | 4,670.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 0.00 | 0.00 | 4,770.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 0.00 | 0.00 | 4,870.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 0.00 | 0.00 | 4,970.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 0.00 | 0.00 | 5,070.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 0.00 | 0.00 | 5,170.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 0.00 | 0.00 | 5,270.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 0.00 | 0.00 | 5,370.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 0.00 | 0.00 | 5,470.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 0.00 | 0.00 | 5,570.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 0.00 | 0.00 | 5,670.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 0.00 | 0.00 | 5,770.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 0.00 | 0.00 | 5,870.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 0.00 | 0.00 | 5,970.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 0.00 | 0.00 | 6,070.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 0.00 | 0.00 | 6,170.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 0.00 | 0.00 | 6,270.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 0.00 | 0.00 | 6,370.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 0.00 | 0.00 | 6,470.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 0.00 | 0.00 | 6,570.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 6,700.00 | 0.00 | 0.00 | 6,670.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 6,800.00 | 0.00 | 0.00 | 6,770.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 6,900.00 | 0.00 | 0.00 | 6,870.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 6,909.34 | 0.00 | 0.00 | 6,880.00 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| NIO TOP | | | | | | | | | |
| 7,000.00 | 0.00 | 0.00 | 6,970.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 7,100.00 | 0.00 | 0.00 | 7,070.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 7,194.34 | 0.00 | 0.00 | 7,165.00 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| CODELL TOP | | | | | | | | | |
| 7,200.00 | 0.00 | 0.00 | 7,170.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 7,277.34 | 0.00 | 0.00 | 7,248.00 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| GRNHRN TOP | | | | | | | | | |
| 7,300.00 | 0.00 | 0.00 | 7,270.66 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| 7,354.34 | 0.00 | 0.00 | 7,325.00 | 293.99 | 6.99 | 294.07 | 0.00 | 0.00 | 0.00 |
| Ricks 13-15 BHL | | | | | | | | | |

Design Targets

| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude |
|---------------------------|---------------|--------------|----------|------------|------------|---------------|--------------|-----------|-------------|
| Ricks 13-15 BHL | 0.00 | 0.00 | 7,325.00 | 293.99 | 6.99 | 1,292,339.69 | 3,235,494.96 | 40.132796 | -104.657755 |
| - hit/miss target | | | | | | | | | |
| - Shape | | | | | | | | | |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |

| | | | |
|------------------|-----------------------------|-------------------------------------|---------------------------------------|
| Database: | edm5000p | Local Co-ordinate Reference: | Well Ricks 13-15 |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | WELL @ 4875.00ft (Original Well Elev) |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | WELL @ 4875.00ft (Original Well Elev) |
| Site: | WELD_RICKS 34-15 PAD | North Reference: | True |
| Well: | Ricks 13-15 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Ricks 13-15 | | |
| Design: | RICKS 13-15 (wp02) | | |

| Casing Points | | | | | |
|---------------------|---------------------|--------|---------------------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (") | Hole Diameter (") | |
| 900.00 | 900.00 | 9 5/8" | 9-5/8 | 12-1/4 | |

| Formations | | | | | | |
|---------------------|---------------------|------------|-----------|---------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) | |
| 4,004.34 | 3,975.00 | PRKMN TOP | | 0.00 | | |
| 4,504.34 | 4,475.00 | SX TOP | | 0.00 | | |
| 6,909.34 | 6,880.00 | NIO TOP | | 0.00 | | |
| 7,194.34 | 7,165.00 | CODELL TOP | | 0.00 | | |
| 7,277.34 | 7,248.00 | GRNHRN TOP | | 0.00 | | |